

Observations on North American CAPSIDÆ with
Descriptions of New Species.

By P. R. UHLER.

(No. 3.)

Div. MIRARIA.

TERATOCORIS, Fieb.

1. *T. herbaticus*, new sp.

Pale greenish yellow, or straw color, moderately polished, minutely pubescent; the head shorter and wider than in the next related genera; the body much narrower in the male than in the female. Vertex broadly depressed behind, with the occiput raised into a transverse curved ridge, which rests intimately against and a little over the front of pronotum; the middle line impressed only near the base. Male with a narrow black vitta extending from behind the tylus to the tip of scutellum. Eyes pale brownish, more prominent in the male than in the female. Antennæ about as long as the entire body to the tip of the wing-covers, moderately dusky, gradually becoming more slender towards the tip, the second joint longest, the third longer than the fourth. Rostrum reaching to the middle coxæ, pale piceous at base and tip.

Pronotum trapezoidal, moderately flat, the sides slightly excurved behind the middle, the anterior portion of the lateral margin strongly reflexed, the posterior margin distinctly sinuated, with the postero-lateral angles callous and prominent, the surface rugulose, coarsely punctate behind the discal prominence, posterior lobe depressed; anterior submargin resembling a wide collum with an impression in the middle; and the males have a dark streak in the suture of the anterior angle. Legs minutely hairy, tinged with brown around the knees and on the tarsi, and the femora marked with a few dark points. Scutellum moderately convex, widely uncovered at base, the tip smooth, prominent, cylindrico-convex. Hemelytra narrow and almost parallel sided in the males, but wider exteriorly, more curved, and with the costal margin more reflexed in the females; the surface obsoletely wrinkled and obscurely punctate, and sometimes a little dusky on the inner margin of corium and on the base of the elsewhere colorless membrane. The corium, clavus and membrane of the female are shorter than in the male and the surface of the two former is more coarsely and distinctly scabrous. Venter of male much narrower than the wing-covers; of the female almost as wide as the wing-covers; the male genital segment is set with stout-erect bristles, and the appendage of the sinistral side is composed of a long compressed basal strap to which is attached a longer curved corneous tapering hook.

Length to end of venter ♂ $3\frac{1}{2}$ — $3\frac{1}{2}$, ♀ 4 — $4\frac{1}{4}$ mm. To tip of membrane ♂ 4 to $4\frac{1}{2}$, ♀ $4\frac{1}{2}$ mm. Width of base of pronotum I— $1\frac{1}{4}$ mm.

Specimens of the male are in the collection of the United States National Museum, which were obtained in the vicinity of Ungava Bay, Labrador, and presented to that institution by L. M. Turner. In my own collection is a mutilated female (alcoholic), which was taken near Hopedale, Labrador, by Dr. Packard, who kindly gave it to me. It seems likely that this species is closely related to *T. hyperboreus* Sahlb., which is found in Lapland; but in the absence of specimens for comparison it is impossible to decide with certainty.

2. *T. discolor*, new sp.

Form of a narrow Nabis; fuscous or rufo-fuscous, with the hemelytra, sides of pronotum, base of coxæ and disk of venter pale testaceous. Head moderately wide, dull, dark fuscous or piceous including the eyes, base of antennæ, and base of the rostrum; vertex and face concurrently convex; eyes nearly globular, very prominent; antennæ somewhat longer than the body with the wing-covers, pale rufous, a little dusky towards the tip, the basal joint stout, a little bent, rather shorter than the pronotum, the second joint nearly as long as the clavus, the third much shorter, about as long as the basal and longer than the fourth; rostrum reaching to the middle coxæ, fuscous at base and piceous at tip. Pronotum campanulate, dull fuscous, with two indistinct yellow spots behind the head, scabrous, more coarsely punctate on the posterior lobe, anterior lobe sub-cylindrical, plane above, almost as long as the intermediate lobe, the latter tumid, transversely indented on the middle, the posterior lobe a little longer, somewhat flattened, broadly and deeply indented each side next the middle lobe, with the lateral margins more broadly reflexed, and postero-lateral angles produced; posterior margin arcuated. Legs long, pale dull rufous, darker on the knees and tarsi, paler at base of femora. Scutellum moderately flat, dull piceous, with a smooth tubercle at tip. Hemelytra minutely pubescent, pale testaceous, tinged a little with dusky upon the nervures and clavus, in pale specimens the discal and inner portions are rosy; membrane whitish, the nervure dusky. Prosternum and a broad vitta each side extending along the sides to the tip of venter fusco-rufous; the edge of the connexicum ivory yellow. The red vittæ of the venter are sometimes expanded so as to cover the sides and leave only the disk and margins testaceous.

Length to tip of hemelytra $5\frac{1}{2}$ —6, to end of venter $4\frac{1}{4}$ — $4\frac{1}{2}$ mm. Width of base of pronotum 1 — $1\frac{1}{4}$ mm. ♀.

Old and thoroughly matured specimens have the dark parts of the pronotum and underside of the body black, and this causes the two yellow spots behind the head to appear very distinct. Only females have thus far been brought to notice.

One specimen from near St. Louis, taken in May; another from the vicinity of Boston, and a third is in the National Museum at Washington, which was captured near Garland, Colorado, on June 18th.

Div. PHYTCORARIA, Reuter.

MELINNA, new genus.

Oval, or oblong-oval; closely related to *Megacalum* Fieber, but having the head set closely into the thorax, and without the neck-like contraction behind the eyes. Head short, nearly vertical, a little sloping forwards, with the eyes vertical, globoso-ovate, occupying most of the side of the head, and curving upon the gula in the male, a little less prominent in the female. Tylus almost vertical, a little curved beneath; superior cheeks short, wide, blunt, tumid, inferior cheeks bluntly triangular. Vertex longitudinally impressed. Antennæ cylindrical, stout, the two apical joints scarcely thinner than the preceding one, basal joint a little thickened apically, the second as long as from the front of the eyes to the base of the pronotum, third and fourth united, not quite as long as the second, the fourth shorter than the third, acuminate at tip. Rostrum moderately stout, the basal joint thick, short, barely reaching upon

the prosternum. Pronotum trapezoidal, shorter than wide, convex; almost bald, rapidly tapering towards the head, a little narrower there in the male, the lateral margins rounded down, particularly in front, posterior margin curved, bent down. Scutellum almost flat, sub-equilateral. Femora normal, the posterior pair curved; basal joint of tarsi shortest, the apical one nearly as long as the other two united. Hemelytra nearly parallel-sided, very feebly curved and widened before the apex; claval incisure distinct, but not deep, the clavus short and wide, very feebly incurved on the outer margin, but strongly excurved on the inner one.

1. *M. modesta*, new sp.

Dark brown, or paler chestnut brown, tinged with rufous when freshly excluded. Long, narrow oval, narrowest headwards, moderately polished, more pubescent upon the hemelytra than upon the head and pronotum. Surface of the head a little rough, remotely pubescent; the antennæ delicately sericeous pubescent, the second joint in the male a very little thickened apically. Rostrum pale piceous, darker at tip, reaching to the posterior coxæ. Pronotum moderately polished, coarsely unevenly punctate, remotely pubescent, most convex across the base; sternum and coxæ pale yellowish brown. The legs pale brownish, more piceous upon the femora and tarsi. Scutellum remotely pubescent, somewhat scabrous, coarsely punctate. Corium dull, closely yellowish pubescent, (often with an oblong yellowish spot at base), moderately scabrous, minutely remotely punctate; in some specimens with a whitish transverse streak at the incisure next the cuneus; membrane paler smoke brown; wings almost hyaline, with the nervures dark brown. Venter highly polished, smoke brown, or rufo-piceous.

Length to tip of venter ♂ $3\frac{1}{4}$ mm., ♀ 4 mm., to tip of membrane ♂ 4, ♀ $4\frac{1}{2}$ mm. Width of base of pronotum about $1\frac{1}{2}$ mm.

This is often a common insect upon Pine trees in the vicinity of Baltimore, and it occurs from the latter part of June until near the middle of July. Later it may be found during the month of October. Most likely it may be found at intervals throughout the summer and autumn, since specimens have been taken in Pennsylvania and New York in the month of August. I have also captured it during July and August in Eastern Massachusetts. Mr. J. Petit has sent specimens from Grimsby, Canada; others were kindly collected for me near Rock Island, Ill., by the late Mr. B. D. Walsh; and recently I have received a pair from Mr. E. P. Van Duzee, which were taken in August, at Lancaster, N. Y. Dr. Asa Fitch obtained a specimen in Washington County, N. Y., and it is the *Phyllocoris carbonarius* of his collection.

2. *M. fasciata*.

This is the *Megacælum fasciatum* Uhler, published in Hayden's Bull. U. S. Geog. Surv. Territ., VIII, p. 421.

Since the above description was published I have taken specimens of this species from the Alder in Eastern Massachusetts.

3. *M. pumila*, new sp.

Form of *M. fasciata*. Chestnut brown or dark tawny, finely yellowish pubescent; head, venter, and cuneus generally rufous, but in old specimens dark brown.

Head moderately polished, obsoletely wrinkled and punctate, remotely pubescent, unevenly indented on back of vertex; gula, rostrum, sternum and legs yellow, but posterior femora more or less piceo-rufous. Antennae flavo-testaceous, minutely hairy, the apical joint and tip of the third one commonly pale piceous. Rostrum reaching to the tip of the intermediate coxae, with the apex piceous. Pronotum transverse, moderately convex, closely set with fulvous pubescence, rugulose and obsoletely punctate, color sometimes tawny across the base. Scutellum rather flat, finely rugulose and obsoletely punctate basally, the apex smoother, pale tawny. Hemelytra finely yellowish pubescent, moderately polished, obsoletely punctate, usually paler on the costal margin and inner edge; cuneus broad, deeply incised, acute at tip, the inner edge concave and the outer margin convex, with the surface highly polished, obsoletely rugulose; membrane very pale fuliginous, with the basal edge white and the cell nervule dusky. Pectus broadly vitate with piceous on each side. Venter highly polished, paler along the middle and tip.

Length to tip of venter 3—3½ mm., to tip of membrane 4—4½ mm. Width of base of pronotum 1—1¼ mm.

In Maryland this species occurs abundantly in June and July, upon *Cratægus*, and I have also found specimens upon Willows as late as the middle of October. Specimens have also been collected near Chicago, and at Rock Island, Ill., by B. D. Walsh. Others have been sent to me from Waco, Texas, by Mr. Belfrage, and I have captured a few others in Eastern Massachusetts.

MEGACCELUM, Fieb.

1. *M. grossum*, new sp.

Elliptical, dark brown, opaque, but conspicuously polished upon the pronotum. Head rounded, dull brown, paler before, incised on the middle line, indistinctly pubescent, the front with transverse ribs of dark brown, between which the surface is minutely shagreened, tylus and lower part of the cheeks piceous-rufous, highly polished, constriction at base of head piceous, polished; rostrum stout, reaching upon the fourth ventral segment, piceous, commonly paler at the incisures, the basal joint extending to the tip of the *prosternal scutum*; antennae stout and long, pale yellow, flecked with brown, the apical joint entirely brown, and about two-thirds as long as the third joint; eyes brownish black, having the posterior canthus bordered with yellow. Pronotum moderately convex, a little wider than long, piceous brown, the sides rapidly obliquely narrowing anteriorly, the outer margin widely reflexed, pale, smooth, a little sinuated; posterior lobe uneven, coarsely, remotely, in part confluent punctate, the callosities prominent, convex, minutely punctate and scabrous; posterior margin moderately curved, the edge ivory yellow, humeral angles almost acutely prominent; pro-pleura polished, anteriorly minutely scabrous, posteriorly coarsely remotely punctate. Sternum, trochanters, tips of coxae, and middle line of venter testaceous, more or less tinged with rufous. Legs pale piceous, with a band of yellow near the tip of all the tibiae. Scutellum dark brown, yellow at tip, minutely transversely wrinkled. Corium pale brown or fulvo-testaceous, sometimes pale clouded with brown; the costal margin whitish, broadly recurved. Clavus and inner submargin of the corium with lines of coarse punctures, the disk of the latter with obsolete remote small punctures; cuneus rufous brown at base interiorly and at tip,

margined on both sides with white; membrane dusky, with the nervule darker, often with a whitish spot next the base and near the tip adjoining the cuneus. Abdomen dull above, polished beneath, dark piceous on the sides of venter, often tinged with rufous.

Length to tip of venter ♂ 6½, ♀ 8 mm., to tip of membrane 7½—9 mm.

The male in this species has the eyes very prominent and the face correspondingly narrow, forming a decided contrast to the wider and more close-set female.

It is sometimes moderately common on Pine bushes in Maryland, Pennsylvania, and Massachusetts, during the month of July. Specimens have also been sent to me from Texas and Florida.

2. *M. pusillum*, new sp.

Rather narrower than the *M. inflatum* H.-Schf. of Europe. Pale tawny, or delicate rufo-testaceous. Head moderately rounded; face diagonally, obsolete wrinkled each side of the middle impressed line; eyes brownish black; antennae testaceous, a little sprinkled with red on the basal joint, and more or less red on the tips of the second and third joints, the apical joint nearly as long as the third, fuscous; rostrum reaching to the middle of the venter, yellowish, the basal joint red, the apical one piceous. Pronotum transverse, moderately convex, unevenly moderately coarsely punctate, the edge a little raised and white all around; callosities less convex than in *M. grossum*, minutely scabrous; lateral margin a little sinuated, the posterior margin moderately convex, the posterior angles nearly rectangular, with the humeri very feebly prominent. Scutellum convexly tumid, feebly wrinkled, indented behind, acuminate at tip, tawny, or rufous. Legs honey yellow, the femora and tibiae more or less tinged with rufous. Pro-pleura yellowish, coarsely punctate; sternum, coxae, trochanters bright yellow. Hemelytra pale yellowish testaceous, thin, obsolete and remotely punctate, costal margin abruptly reflexed, ivory yellow; base of corium rufescent, the apex with a broad dark red band which is protracted in a slender line across the base of cuneus; cuneus deeply incised at base, the apex margined with red, and the inner edge ivory white to beyond the middle; membrane a little dusky, the nervule much darker. Venter polished, rufous each side and on the incisures of the segments.

Length to tip of venter ♀ 5 mm., to tip of membrane 6 mm. Width of base of pronotum 2 mm.

Collected in Arizona by Mr. H. K. Morrison. Thus far, I have examined only females. These have agreed almost exactly in color, size and form, and are about as narrow as the males of the preceding species.

3. *M. mundum*, new sp.

Form similar to that of the preceding species, pale fulvous, or bright yellow, tinged beneath more or less with rufous. Head with a very distinct neck in both sexes, and also with the eyes quite prominent in both. Face almost vertical, distinctly depressed in the male, moderately convex in the female, scabrous, opaque, transversely wrinkled in both sexes, and with the middle line deeply impressed as far as the collum; antennae stout, yellow, the basal joint rufescent, set with long erect bristles, the apical one infuscated and not much shorter than the third; rostrum rufo-testaceous,

reaching to near the tip of the posterior coxae, the basal joint not extending to the tip of the prosternal scutum. Pronotum moderately convex, dark piceous, polished, coarsely but not deeply punctate, transversely rugulose, the sides very oblique and not distinctly sinuated, the callosities much more elevated in the female than in the male; posterior angles almost acute, bent under in one female, the humeri acutely prominent, pro-pleura coarsely punctate, piceous above. Entire underside of body yellowish testaceous, rufous, or rufo-piceous on the sides. Legs fulvo-testaceous, sprinkled with red on the femora. Scutellum piceous, tumidly convex, feeble rugulose, longitudinally indented, and conspicuously impressed next the tip, the tip acute. Hemelytra with a piceous band across the tip of the corium, and including the base and apex of the cuneus; claval sutures distinctly coarsely punctate, the surface of corium remotely obsolete punctate, membrane faintly brown, with the nervule darker.

Length to end of venter ♂ 4, ♀ 5½ mm., to tip of membrane ♂ 4¾, ♀ 6 mm.; width of base of pronotum ♂ 1½, ♀ nearly 2 mm.

Specimens of this species were sent to me from Eastern Georgia by Mr. H. K. Morrison, and I have examined others from various parts of Florida. Mr. Bolter kindly gave me a ♀ specimen which he captured near Enterprise, Fla., in the month of March.

Larva of *Aplodes rubrolinearia*, Pack.

By GEO. D. HULST.

The larva of this Geometer I found feeding on Bayberry, (*Myrica cerifera*), in September 1887 (?), at the east end of Long Island.

It was in general color chocolate brown, with a reddish brown line on dorsum. Head with eyes rounded, but deeply channeled between, both in front and on summit. Segments deeply indented between. On each segment, just below dorsum, on each side, was a projection, most prominent on anal segment. Below these, just above spiracles, are very large projections, pointed, turned forward a little, becoming obsolete on anal segment. A reddish ochreous sub-stigmatal line, with a furcation on each segment, running up in front of lateral projections. Body rounded below; legs 10 in number, light chocolate in color, the anal ones rather ochreous from the extension upon them of the sublateral line. The whole body, projections, head, eyes, and legs strongly rugose.

The larva was, in superficial appearance, very much like the larva given in Dr. Packard's Monograph of the *Geometridæ*, plate XIII, fig. 23.

The pupa was formed in a very slight cocoon of a few strands of silk, partly drawing together a leaf. It was dull light green in color, and having been kept in a warm room all winter, the imago emerged early in March, 1887.